



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBSC7028-P
Job Sheet 172595



Part No: RBSC7028-P

Job Qty: 7 ea

Part Name: Portable Bearing Cutter



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 2/20/18

Job Tracking No:

Due Date: 3/30/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG RBSC7028-P REV:6 IPP REV A 18.02.12 NEW ISSUE RQ VERIFIED BY DP

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	7 Ea		3/29/18	0.00	0.00	Start Up Small Fab 4	N/A	
92	Purchasing	7 pcs		3/29/18	0.00	0.00	Purchasing		At 18/04/18
94	Packaging	7 pcs		3/29/18	0.00	0.00	Packaging2		At 18/04/18
96	QC	7 pcs		3/29/18	0.00	0.00	QC6		38
100	Small Fab	7 pcs		3/30/18	0.08	1.75	Small Fab-9		9-88
130	Packaging	7 pcs		3/30/18	0.00	0.00	Packaging3-2		SS 18/04/18
140	QC21-FG	7 Ea		3/30/18	0.00	0.00	QC21		GA 137/18

Part Op 92 - Issue PO to ARROW TECH MACHINE WORKS P/O: 039084 MANUFACTURE RBSC7028-P AS PER DWG

Descriptions: -Certificate of conformity is required

100 - - Cut tooth guard 5/8 long as per dwg. note for -29 - Assemble.

130 - Identify and Stock

0.03

FEB 22 2018

DAS
21
18-04

APR 17 2018

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
RBSC7028-PP	Portable Bearing Cutter	7 pcs (1 ea)	92-Purchasing	5061391

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
92-Purchasing	RBSC7028-PP	7	1	0

Part Specifications

Specifications could not be found.

DART
AEROSPACE

Container No: S061390



Part: RBSC7028-P
Job No: 172595
Serial No/Batch: S061390

Revision: 6
Inspector:

Date: 04/16/18

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1270 Aberdeen Street
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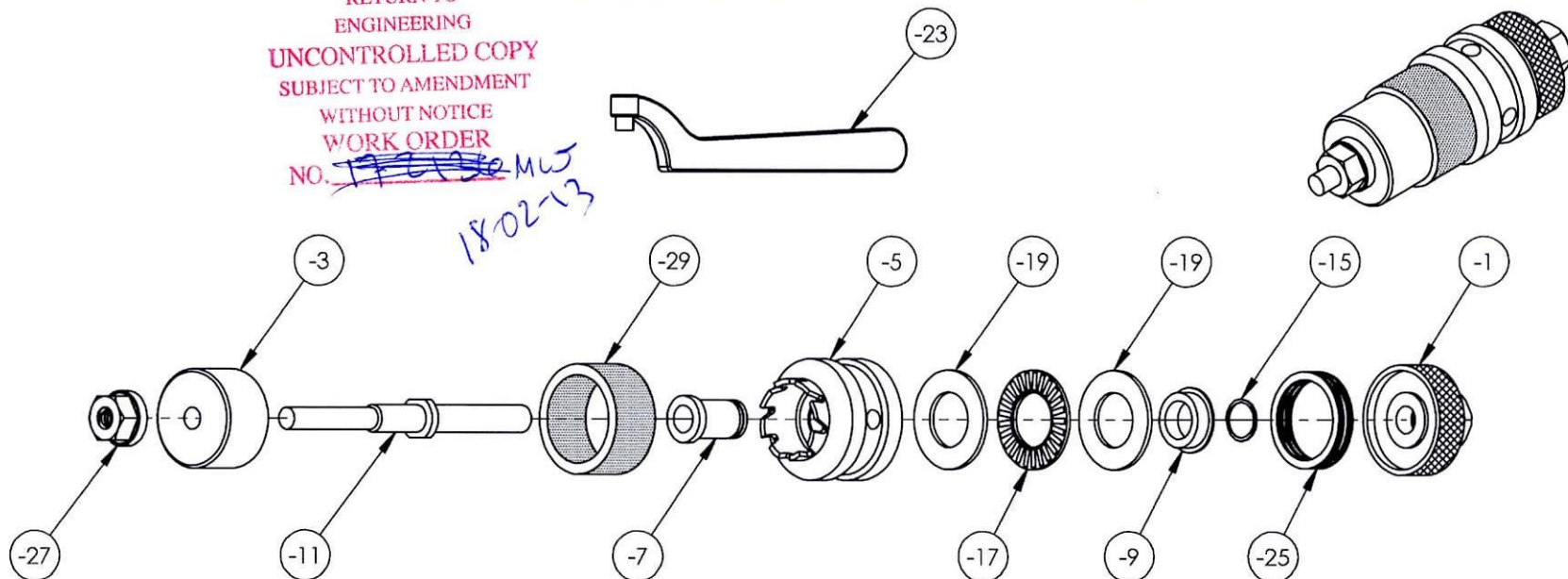
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BEARINGS AND TOOLS COVERED

BEARING #	TOOL #
406-310-403-101	RBSC7008-P
206-010-470-101	RBSC7028-P
406-312-100-101	RBSC7048-P
412-010-182-103	RBSC7188-P

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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. ~~176135~~ MJS
18-02-13

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CHANGED TOOL # RBSC412-010-103-P TO RBSC7188-P TO CLARIFY TOOLING IDENTIFICATION.	11/6/09	WP	DW
2		ADDED NEW BRG. CUTTER RBSC7048-P FOR BEARING #406-312-100-101 PER E.B.	5/2/11	RJC	
3		CH'D -3 B FROM .312, CORRECTED -11 SCALE TO REFLECT PART REPRESENTATION PER S.E.	6/24/11	RJC	RW
4		-5 CH'D DIM SCHEME, REDREW SECTION VIEW.	7/13/2015	BIM	SE
5	15-0470	UPDATED TO NEW DRAFTING STANDARDS. ADDED NEW BEARING MODELS.	7/13/2015	SM	JAG
6	16-0112	UPDATED TO NEW STANDARD. ADDED CASE RSR GROUP #10137 TO BOM. -1 CH'D MAT'L WAS 1018 IS 1018/1020 CR. CH'D DIMS WAS $\phi .625$ IS $\phi .63$. WAS 5/16-24 UNF IS 5/16-24 UNF-2B. ADDED SPEC. -3 CH'D MAT'L WAS 4140 Q&T RND BAR IS 4140/4142. CH'D DIM WAS .032 X 45° IS .03 X 45°. ADDED HEAT TREAT AND SPEC. -5 CH'D DIMS WAS R.030 IS R.03. WAS .015 X 45° IS .02 X 45°. WAS R.015 MAX IS R.02 MAX. ADDED DIM 4X $\phi .219 \pm .23$ EQUALLY SPACED. ADDED SPEC. -11 CH'D MAT'L WAS 4140 Q&T IS 4140/4142. ADDED HEAT TREAT AND SPEC. CH'D DIMS WAS 1/4-20 MACHINE THREADS IS 1/4-20 UNC-2A, WAS 5/16-24 MACHINE THREADS IS 5/16-24 UNF-2A.	8/11/2016	DEW	SM



ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			-1	1	SPRING TENSIONER	1018/1020 CR		2
			-3	1	SEAT	4140/4142		3
			-5	1	CUTTER	O-1		4
			-7	1	GUIDE	BRONZE		5
			-9	1	BUSHING	BRONZE		6
			-11	1	STUD	4140/4142		7
		B/O	-15	1	SPIRAL EXTERNAL RETAINING RING	STEEL	$\phi 7/16$ SHAFT (MCMASTER-CARR # 91665A350)	1
		B/O	-17	1	THRUST BEARING	STEEL	$\phi 5/8$ ID. X 1-1/8 OD. X 5/64 (APPLIED # NTA-1018)	1
		B/O	-19	2	THRUST WASHER	STEEL	$\phi 5/8$ ID. X 1-1/8 OD. X 1/16 (APPLIED # TRB-1018)	1
		B/O	-23	1	FIXED PIN SPANNER WRENCH	STEEL	$\phi 1-1/4$ OD. X $\phi 13/64$ PIN (MCMASTER-CARR # 5475A12)	1
		B/O	-25	1	CREST TO CREST SPRING	STEEL	SMALLEY CO. # CS112-H2	1
		B/O	-27	1	ROTATING FLANGE NUT	STEEL	1/4-20 ROTATING FLANGE NUT (MCMASTER-CARR #90477A029)	1
		B/O	-29	1	TOOTH GUARD (FOR SHIPPING ONLY)	VINYL	SEE -5 ØB PAGE 4 FOR INSIDE DIA. OF TUBE X 5/8 LENGTH	1
		B/O	-31	1	CASE	PLASTIC	(RSR GROUP # 10137)	N/S

DART AEROSPACE	
TITLE RBSC7###-P SERIES PORTABLE BEARING CUTTERS FOR BELL BEARINGS	
DWG NO.	RBSC7###-P
REV	6
MAT'L	
HEAT TREAT	
FINISH	
SPEC	
DRAWN BY:	MACKOVJAK
CHECKED:	DUERFELDT
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT
SCALE	1:2
DATE	7/13/2015
SHEET 1 OF 7	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ± .5°
.X ± .1 SURFACES = 125/✓

1. BREAK ALL SHARP EDGES
.015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY
AFTER PLATING
3. INTERPRET DIM AND TOL PER
ASME Y14.5M-2009
USED ON MODEL

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					



Dart Aerospace Ltd.
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Tel (613) 632-5200

PURCHASE ORDER PO039084

Supplier: ARR002-VU
Arrow Tech Machine Works
29751 E. Enid Road,
Unit C
Eugene, OR 97402 USA
Phone: 541-780-6938
Fax: 458-215-4938

PO No: PO039084

PO Date: 2/21/18

Due Date: 4/30/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Baker, Diane
Phone: dbaker@dartaero.com

E-MAILED
MAR 06 2018

Ship To:

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items											
Line Item	Part	Supplier Part No	Item No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	RBSC7028-PP			Portable Bearing Cutter As Per Dwg RBSC7028-P Rev.6	Firmed	4/6/18	7 pcs	0 pcs	7 pcs	\$843.42/pcs	\$5,903.94
Line Item Note job# 172595											
2	RBE703A94-3000-00-1P			Wide Frame Assembly As Per Dwg RBE703A94-3000-00-1 Rev. 1	Firmed	3/20/18	3 Ea	0 Ea	3 Ea	\$2,417.56/Ea	\$7,252.68
Line Item Note job# 172374											
3	RBE703A94-3000-00-3P			Narrow Frame Assembly As Per Dwg RBE703A94-3000-00-3	Firmed	3/20/18	3 Ea	0 Ea	3 Ea	\$2,417.56/Ea	\$7,252.68
Line Item Note job# 172375											
4	RBW0805G00231-3GP			Adapter Assembly Helicopter Weighing As Per Dwg RBW0805G00231-3G-1	Firmed	4/30/18	9 Ea	0 Ea	9 Ea	\$564.82/Ea	\$5,083.38
Line Item Note job# 172567											
5	RBW6405G08832-3GP			Tail Rotor Bushing Install Tool As Per Dwg RBW6405G08832-3G Rev/ D	Firmed	4/30/18	3 Ea	0 Ea	3 Ea	\$809.13/Ea	\$2,427.39
Line Item Note job# 172623											
6	RBW6405G08732-3GP			Tail Rotor Bushing Removal Tool RBW6405G08732-3G Rev. E	Firmed	4/30/18	3 Ea	0 Ea	3 Ea	\$459.38/Ea	\$1,378.14
Line Item Note job# 172622											
7					Firmed	4/16/18	5 Ea	0 Ea	5 Ea	\$618.50/Ea	\$3,092.50



ARROW TECH MACHINE WORKS

Certificate of Conformance

Your Purchase Order No: 39084 Dated: 04/06/2018
Our Order / Job No: 27AWT Order Qty: 7 Assemblies
Part Name: Portable Bearing Cutter
Part Number: RBSC7028-P
Lot Size: N/A Ship Date: 04/06/2018

We certify that these parts shipped to you are of domestic or international manufacture and conform to all requirements of the Purchase Order. These parts have been manufactured and inspected in accordance with all required specifications, instructions and drawings. Any applicable specifications are listed below:

Drawing Number: RBSC7028-P Rev:6

Material Size and Type: -1/1018 STEEL; -3,-11 /4140 STEEL; -5/O1 ALLOY; -7,-9/BRONZE

Material Specifications: **STEEL** ASTM A108, **STEEL** ASTM A681, **BRONZE** B505

Heat Treatment:-5/RC 55-60; -3 &-11/ RC 28-32

Plating/Finish: Black Oxide as per QMSI-6.2.2 B.O. REV-D

Mercury Contamination: The material used to process this order has not come in contact with mercury or mercury bearing instruments.

Date: 04/06/2018

Signed: 

PHGE Machine Works LLC dba Arrow Tech Machine Works
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